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ABSTRACT

The paper provides a review of goal theory as articulated by Edwin Locke. The theory is evaluated in terms of laboratory and field research and its practical usefulnes is explored as a means to improving individual productivity in "real world" organizations Research findings provide support for some goal theory propositions but suggest also the need for an elaboration of the model to include other variables such as the task, managerial style and several individual difference characteristics. (Author)

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SYMPOSIUM: MOTIVATING INDIVIDUALS TO INCREASE THEIR PRODUCTIVITY: WHICH THEORY SHOULD WE FOLLOW?

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Goal Theory and Individual Productivity

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Goal Theory

Setting goals as a means of improving individual performance is not new in the world of work. It is an important ingredient in Frederick Taylor's Scientific Management prescriptions (Taylor, 1911), it plays a central role in Management by Objectives programs (Carroll & Tosi, 1973) and remains a topic of concern in budgeting literature and practice (e.g., Stedry & Kay, 1966). However one must turn to the work of Edwin Locke for a theoretical formulation of goal setting in relation to individual performance (Locke, 1968). A considerable body of laboratory and field research has been devoted to testing aspects of this theory in recent years (see excellent review articles by Latham & Yukl, 1975a, and Steers & Porter, 1974).

Locke's basic premise is that an individual's conscious goals or intentions influence his or her subsequent behaviour. That is, what an individual intends to do will have a direct bearing on the outcome which follows. In the context of goal theory, the task goal which individuals set or accept will have a significant effect on the performance level they attain. Goal theory, in relation to task performance, is concerned with motivation both in terms of choice (e.g., goal level) and effort (e.g., the amount, direction, maintenance, and termination of effort).

The propositions which Locke developed are as follows:

1) A specific hard task goal leads to a higher level of performance than an unspecific or generalized goal of "do your best", provided this goal is accepted by the individual. In short, Locke argues that there is a positive linear relationship between goal difficulty and level of performance, given that the goal is accepted.

2) An individual's conscious intentions mediate the relationship between incentives and subsequent performance. Thus incentives such as performance

feedback, money, participation in goal setting, peer competition, and time limits are predicted to affect level of performance only to the extent that they influence the task goal the individual sets or accepts. No change in performance level should occur if the incentive does not influence the individual's goals.

A task goal according to Locke is a consciously held aim of an action. In research studies it is commonly operationalized as a quantitative, desired level of output goal. Goal difficulty has been operationalized in terms of probability of goal achievement, objectively or empirically derived in some studies and based on a subject's perceptions of probability of success in others.

Goal theory does not specifically address itself to why a specific hard goal increases output. However, some authors have argued that setting a specific task goal clarifies what is desirable as a performance outcome, thereby focusing the individual's effort (Steers & Porter, 1974). Setting a difficult task goal is assumed to arouse and sustain effort through the challenge it provides the individual in performing the task (Stedry & Kay, 1966).

Evaluating Goal Theory

Taking the perspective of the practitioner one might be tempted to ask the goal theorist: "What always works where?" or "Tell me where it works and where it doesn't". The evidence from laboratory and field research reveals strong empirical support for certain aspects of goal theory and, perhaps predictably, indicates equivocality for others, all of which suggests the need for some modification and elaboration of the theory. Given a focus on individual task performance and quantitative task performance in particular, goal theory research suggests the following:

1) Setting a specific goal leads to a higher performance level than occurs if no goal is set. (Latham & Yukl, 1975a; Steers & Porter, 1974).

2) Setting a specific and difficult goal which is accepted sometimes leads to a higher performance than an easy specific goal or a generalized "do your best" goal. The evidence is not clear-cut, however. Laboratory studies by Locke (1968) and his associates support this hypothesis. Field research has been largely correlational and the findings are mixed. For example, Steers found no significant relationship between first line supervisor's perceived goal difficulty and performance ratings (Steers, 1975). Blumenfield and Leidy (1969) found that employees checking vending machines who were assigned a hard goal did better than those assigned easy goals. In a recent laboratory study reported by Locke (1975), Cartledge found that the best predictors of an individual's effort were the individual's intended work rate and perceived goal difficulty.

3) Some evidence exists to support the assertion that goal setting moderates incentive-performance relationships. Cummings, Schwab & Rosen (1971) found that provision of accurate performance feedback raised goal levels of subjects in a laboratory experiment. Time limits affected performance of loggers through their effect on goal setting, in a field study by Latham & Locke (1975). However, incentives such as money may have an effect on performance independent of goal setting. For example, Pritchard & Curtis (1973) found that offering a large financial incentive led to high performance independent of goal level set. Small incentives had no direct effect on performance of subjects in the study. In some cases, other variables moderate the incentive-goals-performance relationship. Steers (1973) found a positive relationship between feedback and level of performance only among subjects with high need for achievement, affiliation and independence.

4) Goal-performance relationships are influenced by other moderating variables. These are discussed in the context of elaborating the theory in the section which follows.

Given my orientation here toward indicating where goal theory works and where it doesn't, I find it useful to regroup the various moderating variables reported in the goal theory literature into several broad categories which can be extremely important in an organizational context, namely the task, the individual, and managerial style.

The Task. Goal theory has tended to treat the task performed as a given, with the exception of a study by Campbell & Ilgen (1976). Little research evidence is available describing goal-performance relationships where the task is treated as a variable. Also tasks used in goal theory research have tended for the most part to be repetitive, relatively simple tasks such as checking vending machines, operating telephones, doing assembly work, crossing numbers, or cutting trees. However, the nature of the task does make a difference. For example, Miller & Hamblin (1963) found that task interdependence moderated the relationship between peer competition and performance. Peer competition was associated with low productivity when tasks were highly interdependent. Frost & Mahoney (1976) observed that pacing a task through regularly provided feedback led to higher performance on a repetitive task than no feedback but had no effect on performance on a task with a variable process. They observed also that a specific quantitative goal improved performance only on the latter task. In short the task is a multi-dimensional variable and its role in goal theory needs to be investigated further. Task interdependence and routineness at least, should be taken into account when goals are set.

The Individual. Managers and administrators must motivate individuals who are likely to differ from one another on several dimensions. In the context

of goal theory several individual difference variables appear important. First line supervisors high on need for achievement performed better when given performance feedback and when they participated in goal setting than did their counterparts who were not exposed to these incentives. (Steers, 1975). Self assurance and maturity (Carroll & Tosi, 1970) and tenure (Dachler & Mobley, 1973) appear to be positively related to effort and to performance. Level of education also appears to influence goal-performance relationships. Latham & Yukl (1975b) found that educationally disadvantaged loggers increased goal attainment and performance following participative goal setting. This relationship was absent in educationally advantaged crews.

Clearly, one might anticipate interactions among individual difference variables as well. It would be useful to know, for example, whether need for achievement and tenure interact to affect goal acceptance and performance, and whether maturity and tenure combine to influence goal setting behaviour. Interestingly, Latham & Yukl (1976) examined the potential independent and interactive influences of each of several individual difference variables of typists on goal setting, performance and satisfaction. Variables studied were locus of control, need for achievement, self-esteem and time on the job. They found no significant effects for these variables. The precise role of individual difference variables as moderators of goal-performance relationships is clearly in need of further study.

Managerial Style. Several aspects of what I have termed managerial style appear likely to influence the goal-performance relationship. The existing evidence is limited and much of it is essentially anecdotal in nature, but it is worth discussing briefly. Close supervision of logging crews appears to correlate with goal setting and performance (Ronan, Latham, Kinne, 1973). The researchers considered close supervision in this context as necessary for

encouraging goal acceptance. Ivancevich (1972, 1974) identified ongoing top management support and commitment as an important correlate of MBO program effectiveness. Drawing from more anecdotal evidence, Latham & Yukl (1975b) studying logging crews and Latham & Baldes (1975) studying logging truck drivers cited management support of a goal setting program as a key factor in the success or failure of such a program. Managerial support may well provide an important role in sustaining the effects of a goal setting program and in securing goal acceptance. I found it interesting to note, in field studies where goal setting was accepted, the reported inclusion of instructions to supervisors to acknowledge or praise good performance and to consciously avoid criticism and punishment for performance (e.g., see Latham & Baldes, 1975; Latham & Yukl, 1976). Positive feedback as an aspect of managerial style may be an important incentive for goal setting and acceptance. This would tend to fit with the finding of French and his associates that positive feedback in the form of specific improvement goals leads to significantly higher performance than criticism or no goal (French, Kay & Meyer, 1966).

The issue of whether the employee should participate in setting performance goals or whether the supervisor should assign them to the employee remains unclear. As noted previously, Latham & Yukl (1975b) found that participative goal setting led to higher goals being set and attained than when goals were assigned to educationally disadvantaged workers. In a more recent study, however, these same authors found that the two methods (participative vs. assigned goal setting) were equally effective for increasing the performance of female typists (Latham & Yukl, 1976). The findings in the latter study lend support to the view of French, Kay & Meyer (1966) that it is not so important how the goal is set as it is that a goal is in fact set.

Applying Goal Theory

The manager or administrator in an organization is typically concerned with

performance improvement or results when talking about motivating others. Goal theory is performance oriented, and as a potential motivation tool is characterized by the parsimony of its assumptions, an absence of elaborate "packaging" and hardware, and a relatively simple set of prescriptions. The essential message of goal theory for the practitioner is as follows:

> An individual's intentions will have an important influence on his or her performance on the job; therefore a) encourage the setting of specific and hard task goals to produce high performance, and take steps to ensure the individual accepts the goal; and b) use incentives to influence the goal level accepted by the individual.

An outline of prescriptions based on goal theory would be:

1) Set a performance goal which is sufficiently specific to lend itself to measurement. The goal may be expressed in terms of desired behaviours or consequences (i.e., outcomes of behaviour, such as units produced).
2) Establish the goal level as high relative to the individual's usual or average performance. In other words, the goal should be difficult but attainable. An impossible goal is unlikely to be accepted.
3) If the individual is unlikely to accept an assigned goal simply because it is specified and difficult, use incentives such as performance feedback, peer competition, participation, or money to influence goal acceptance.

For example, feedback acts as an incentive through the opportunity it provides for feelings of closure and accomplishment. The prescription here is to provide individuals with feedback upon task completion. This will enable them to check their performance against the task goal and to decide on the level of effort required to accomplish the goal the next time they engage in the task. Performance feedback can also be provided at regular intervals during task progress as a means of

pacing performance. Individuals can assess their effort and its outcome relative to sub-goals and adjust their effort accordingly.

In conclusion, goal theory has limitations. It does not as yet tell us why or how goals influence performance. It does not take into account the relationships among individual, group, and organizational goals. On the positive side, goal theory is an elegant theory for academicians in that it provides a rich source of researchable questions on individual motivation. It is simple and easy to apply for the practitioner. In answer to the universal question, "How much does it cost?" the answer is, "probably very little". It is worthwhile noting the comment by Latham & Baldes (1975) that one logging company saved an estimated quarter million dollars as the result of applying this theory. Goal theory deserves further attention by academicians and practitioners alike as one path to increasing our understanding of motivation.

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